

PATENT  
IN THE UNITED STATES PATENT & TRADEMARK OFFICE

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U.S. Serial No.: 09/734,220	)	Customer No.: 000043471
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Filed: December 11, 2000	)	Art Unit: 2145
	)	
	)	Examiner: Thomas Duong
	)	
Title: SEAMLESS ARBITRARY DATA INSERTION FOR STREAMING MEDIA		

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**I. Real Party In Interest**

The Real Party in interest is General Instrument Corporation, which is a wholly owned subsidiary of Motorola, Inc.

**II. Related Appeals And Interferences**

There are no related appeals or interferences which may have a bearing on this case.

**III. Status Of Claims**

All claims, claims 1-30, stand rejected. The rejections of claims 1-30 are being appealed.

**IV. Status Of Amendments**

No amendments have been submitted subsequent to the final rejection. All prior amendments have been entered.

**V. Summary Of Claimed Subject Matter**

The application contains claims 1-30, and claims 1, 2 and 21 are independent claims. Claims 1 and 2 are directed toward different approaches of an arrangement for inserting an alternative media file into a streaming multimedia file destined for at least one predetermined end-user. Claim 21 is directed toward a method of inserting an alternative media file in a streaming multimedia file destined for a predetermined end-user. Each of these claims are discussed below after a brief discussion of background.

As explained in paragraphs [0002 – 0005] of Applicant's published disclosure, streaming media defines the capability to download multimedia files in real time (or "near real" time) and play the file on an end-user device, such as through a set-top box on a television or on a computer display device. Specification, para. [0003]. Prior to Applicant's invention, it was possible to also download advertisements (or other media) to end users once the video or other presented material in the stream is completed. However, these advertisements were limited by the need to "wait" until the end of the program thus limiting the number, as well as the duration of advertisements that can be presented to end users. Hence, there was a need in the art relating to a methodology for inserting data such as advertising in streaming media. Applicant's invention addresses this need by providing a technique for inserting such data at arbitrary locations along the stream.

As mentioned, claim 1 is directed toward an arrangement for inserting an alternative media file into a streaming multimedia file destined for at least one predetermined end-user. The arrangement in claim 1 includes a first cache for storing a received alternative media file, which is supported at least by the disclosed "first cache 60" illustrated in Fig. 2 and described in at least paragraph [0024]. The arrangement also includes a second cache for storing a streaming multimedia file, which is supported at least by the disclosed "second cache 62" illustrated in Fig. 2 and described in at least paragraph [0024]. A control unit for receiving as a first input a control signal from the first cache and generating as an output a switching control signal indicative of the presence or absence of a complete alternative media file being stored in the first cache is also included in the arrangement. The control unit is supported at least by "control unit

66” illustrated in Fig. 2 and described in at least paragraph [0024]. The arrangement also includes a switching mechanism, coupled to each one of the control unit, the first cache, the second cache and the streaming multimedia file for providing as an output, directed to the at least one end-user, a stream selected from one of the first cache, the streaming multimedia file and the second cache, as controlled by the switching output signal from the control unit so as to insert the alternative media file in the stream. The switching unit and its operation is illustrated in Fig. 2 and described in at least paragraph [0024]. The limitation of “wherein the alternative media file is inserted in the stream independent of boundaries of the multimedia file” corresponds to the discussion in at least paragraph [0023] in which Applicant’s explain that in one embodiment, the multimedia stream may begin to reach the user before an advertisement is inserted. As explained, at some point along the playing of the file, an advertisement is inserted as segment 54 and the remainder of the multimedia stream, represented as segment 56, is appended to the end of the advertisement. Para. [0023].

As mentioned, claim 2 is directed toward an arrangement for inserting an alternative media file into a streaming multimedia file destined for at least one predetermined end-user. The arrangement in claim 2 differs from claim 1, but similarly comprises: a first cache for storing a received alternative media file; a second cache for storing a streaming multimedia file; a control unit for receiving as a first input a control signal from the first cache and generating as an output a switching control signal indicative of the presence or absence of a complete alternative media file being stored in the first cache; and a switching mechanism, coupled to each one of the control unit, the first cache, the second cache and the streaming multimedia file for providing as an

output, directed to the at least one end-user, a stream selected from one of the first cache, the streaming multimedia file and the second cache, as controlled by the switching output signal from the control unit so as to insert the alternative media file at a predetermined location in the stream, including either one of the beginning and the end of the streaming multimedia file. However, in the arrangement of claim 2, the control signal output from the first cache indicates that a complete alternative file is stored and is ready for transmission to the predetermined at least one end-user, or will be ready in time to transmit. This feature is supported at least by the discussion in paragraph [0024] which states “When control unit 66 receives a particular indication from first cache 60 (such as “EOF” received), it knows that advertisement stream A is ready to be played out and multimedia stream MM can be held. A signal is then sent from timing and control unit 66 to switch 67, requesting the switch to move to position (2), allowing the cached advertisement stream A to be sent to end-user 10.” Para. [0024].

Claim 21 is directed toward a method of inserting an alternative media file in a streaming multimedia file destined for a predetermined end-user. Claim 21 includes a step of storing a selected alternative multimedia file in a first cache at a local point of presence, which is supported at least by the discussion of the disclosed “first cache 60” illustrated in Fig. 2 and described in at least paragraph [0024]. The method also includes a steps of establishing a communication link between said streaming multimedia file and said predetermined end-user, and transmitting said streaming media file to said end-user, which are supported at least by Figs. 1 and 2. The method also includes the steps of switching transmission from said streaming multimedia file to said alternative media file stored in said first cache, storing in a second cache said streaming multimedia file

received during the transmission of said alternative media file, and upon completion of said alternative media file, accessing said second cache and resuming transmission of the cached streaming multimedia file, which are supported at least by the discussion provided in paragraph [0024 of Applicant's published application ("A signal is then sent from timing and control unit 66 to switch 67, requesting the switch to move to position (2), allowing the cached advertisement stream A to be sent to end-user 10. Once this process begins, multimedia stream MM will begin to be stored in second cache 62. When timing and control unit 66 receives a command that the end of the advertisement has been reached, a signal to move switch 67 to position (3) will be sent, allowing the cached multimedia stream to be sent to end-user 10."). The limitation of "wherein the alternative media file is inserted in the streaming multimedia independent of boundaries of the multimedia file" is supported at least by the discussion in at least paragraph [0023] in which Applicant's explain that in one embodiment, the multimedia stream may begin to reach the user before an advertisement is inserted. As explained in paragraph [0023], at some point along the playing of the file, an advertisement is inserted as segment 54 and the remainder of the multimedia stream, represented as segment 56, is appended to the end of the advertisement. Para. [0023].

#### **VI. Grounds Of Rejection To Be Reviewed On Appeal**

- A. Rejection of claims 1 and 3-30 under 35 U.S.C. § 102.
- B. Rejection of claim 2 under 35 U.S.C. § 102.

## VII. Argument

### A. **Capek Does Not Disclose To Insert An Media File In A Multimedia Stream Independent Of Boundaries Of The Multimedia File As Recited In Claims 1 And 21**

Claims 1-30 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Capek et al. (U.S. Pat. 6,094,677).

Anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed in a prior art reference as arranged in the claim. See, *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1380 (Fed. Cir. June 2006) “a claim is anticipated under 35 U.S.C. § 102 ‘if each and every limitation is found either expressly or inherently in a single prior art reference’” citing, *Bristol-Myers Squibb Co. v. Ben Venue Labs, Inc.*, 246 F.3d 1368, 1374 (Fed. Cir. 2001). See also, *Akzo N.V. v. U.S. Int’l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986); *Connell v. Sears, Roebuck & Co.*, 220 USPQ 193, 198 (Fed. Cir. 1983).

Capek does not disclose or suggest a switching mechanism, coupled to each one of said control unit, said first cache, said second cache and said streaming multimedia file for providing as an output, directed to the at least one end-user, a stream selected from one of said first cache, said streaming multimedia file and said second cache, as controlled by said switching output signal from said control unit so as to insert the alternative media file in the stream, wherein the alternative media file is inserted in the stream independent of boundaries of the multimedia file, as recited by claim 1. Capek also does not disclose d) switching transmission from said streaming multimedia file to said alternative media file stored in said first cache, e) storing in a second cache said streaming multimedia file received during the transmission of said alternative media file;

and f) upon completion of said alternative media file, accessing said second cache and resuming transmission of the cached streaming multimedia file, wherein the alternative media file is inserted in the streaming multimedia independent of boundaries of the multimedia file, as recited by claim 21. More particularly, Capek does not disclose at least the limitation in the clause “wherein the alternative media file is inserted in the stream independent of boundaries of the multimedia file,” as substantially recited by each of claims 1 and 21.

Capek discloses to use an insertion manager 20 to provide an insert from an insertion repository 22 to a client 24 device during a delay of receiving requested data from a server 26. See, Capek, Title, Abs., Figs. 1, and 4A and 4B. Capek is concerned with reducing delays between the client and a server containing the content of an ad, *i.e.* delays in retrieving the ad from the server. See, Figs. 4A and 4B; col. 7: 16-25. Capek clearly explains that the procedure in Fig. 4A is prior art to Capek, and Fig. 4B, in which the insertion manager provides an advertisement from its repository to the client when a certain delay has passed is the contribution to the art of Capek. See, Figs. 2, 4A and 4B; col. 10: 29-68 (“referring to FIG. 4A which does not implement the present invention” .... With the present invention, as illustrated in FIG. 4B”). In both Fig. 4A and 4B, the process is initiated by a request from the client, at time A, which also initiates the “dead time” time periods in the media stream, *i.e.* a break in the media stream. See, Figs. 4A and 4B. The time period for providing the advertisement to the client in Capek is clearly disclosed as being initiated by a break in the streaming media to initiate the “dead time”, *i.e.* time period A, and clearly not “independent of boundaries of the multimedia file.” Capek even touts making inserts during a delay period.

## **1. Capek Touts Making Inserts During Delays In Receiving Files From A Server**

Capek repeatedly touts its disclosure as providing inserts during a delay in receiving a file from server 26. A few of the excerpts are as follows:

Capek, col. 6: 66 through col. 7: 16

The present invention takes advantage of *retrieval delays in interactive systems* by providing informative and/or engaging information in a format suitable for the type of interactive system in which the present invention is operating. For instance, a web page may be provided to a user *waiting for a home page of a particular web site to download* in the context of the WWW. Likewise, a video/audio clip may be provided to a person *waiting for the presentation of a selected movie* in the context of on-demand television. Further, the information provided to the user *during the delay* may be customized for the user to increase the users interest and to make the information more engaging.

Capek, col. 10: 29-37:

Accordingly, the present invention is able to provide an insertion of customized information to a client *during the retrieval* of requested program materials *which, without the present invention, will be perceived as dead time to the client* 24. This is graphically illustrated in FIGS. 4A and 4B which show the timing relationship between a system that does not implement the present invention (FIG. 4A) and a system which does implement the present invention (FIG. 4B).

Capek goes on to explain that providing inserts during the retrieval delay as being “advantageous because it eliminates the frustration and annoyance users often experience when waiting for requested program material to be downloaded in distributed interactive systems.” Capek, col. 7: 10-14.

## **2. Capek Defines An Insert As Provided During Delays**

Capek even defines the term “insert or insertion” as used in its disclosure as “information provided to the user during the delays.” See, Capek, col. 7: 14-16 (“for purposes of the present disclosure, the information provided to the user during the delays is referred to hereinafter as an insert or insertion”). Clearly, one of skill in the art would understand that Capek discloses to provide inserts to a client during delays in retrieving files from a server. Yet, in spite of numerous statements in Capek, the Examiner interprets Capek to actually disclose to provide inserts independently of boundaries in a multimedia file.

### **3. The Examiner’s Conclusions Are Misplaced**

The Examiner attempts to refute the plain statements provided in the Capek reference itself with micro-analyzing various individual sentences in Capek, without apparent regard for their context or intended subject. Particularly, in the Final Office action, the Examiner points to col. 9: 13-16, in the Advisory Action, the Examiner points to col. 5: 14-16, 20-22 and 41-52; col. 7: 49-52; col. 9: 6-24; col. 10: 18-28 and lines 1-67. None of the portions cited by the Examiner remotely suggest to provide an “insert” independent of the boundaries of a streaming media file. Apparently recognizing this, the Examiner strings together selected sentences from disparate parts of the disclosure and juxtaposes them in a manner to attempt to rationalize away from the expressed statements of intent in Capek. See, Advisory Action, pp. 4-5. However, such rationalization, no matter how creative cannot be a substitute for actual disclosure, nor can it refute what is actually disclosed by Capek.

**a. The Examiner's Rationalization Is Not Supported By Capek**

The Examiner's latest rationalization provided in an Advisory Action is as follows with indicators (denoted by "Points 1-6" and "Conclusion") provided by Applicant in bold for discussion:

wherein the alternative media file is inserted in the stream independent of boundaries of the multimedia file. (Capek, col.5, lines 20-22, lines 41-52; col.7, lines 49-52; col.9, lines 6-24; col. 10, lines 18-28; col.10, lines 1-67). **Point 1** Capek includes a control mechanism that "will provide for the replacement of the insertion by the requested program material once the program material is received from the distribution server" (Capek, col.9, lines 11-13). **Point 2** In other words, Capek's control mechanism will replace the insertion data, which may be "text, graphics, animation, motion video, sound, etc" as well as "the combination of data having different formats into a single insertion for providing a multimedia experience" (Capek, col.7, lines 49-52), with the requested material once it is available. **Point 3** According to Capek, the control logic's function is to "replaces the insertion with the requested program material after the program is retrieved" (Capek, col.5, lines 20-22). **Point 4** Also, the "insertion manager may then make a determination of how long to provide the insertion to the user before beginning to forward the buffered data to the client in order that the last byte of data is delivered at approximately the same time as it would have been if the data had been downloaded directly to the client" (Capek, col.10, lines 18-27). **Point 5** In addition, Capek teaches "wherein an insertion is selectively transmitted to the first application if the amount of time required to retrieve the requested information is sufficient to transmit the insertion to the first application. The transmission of the retrieved application may, on the other hand, be preceded by waiting a preselected period of time. The preselected period of time may be based upon the insertion transmitted to the first application. The preselected period of time may alternatively be based upon the amount of time required to retrieve the information from the second computer" (Capek, col.5, lines 41 -52). **Conclusion** Hence, Capek teaches of inserting the alternate media file into the multimedia stream regardless of the stream since (**Point 6**) the insertion, as "a complete insertion or elements of an insertion that can be used to generate a complete insertion dynamically" (Capek, col.5, lines 14-1 6) can be done while waiting for the retrieval of requested stream (*i.e., during a network delay in the middle of transmitting the multimedia perhaps*), before the transmission of the multimedia altogether, etc.

Advisory Action, pp. 4-5.

Regarding Point 1, while the Examiner seems to make much out of the fact that an insert is replaced by a program which was requested and retrieved, one would normally expect that the user may actually want to access to their requested program rather than the insert imposed upon them. In this regard, the insert is still provided to the user in the retrieval delay period and then ended when the retrieval delay period ends, a.k.a. when the requested program is provided. The process of providing the insert is clearly dependent on the boundaries of the retrieved program. Moreover, the control mechanism is utilized by the client, and “is delivered to the client as a part of the insertion” and “can enable the client to interact with and control the insertion,” as stated by Capek in the first sentences of the paragraph from which the Examiner takes the quoted passage. The control mechanism is discussed in more detail below. In any event, this cited portion clearly corresponds with the statements in Capek that the insertion is provided during a retrieval delay period.

Regarding Point 2, whether the insertion is “text, graphics, animation ... etc.” merely pertains to the content of the insertion. The content and format of the insertion is largely irrelevant to the manner of inserting the insertion in a data stream with respect to a multimedia file. In other words, the insertion is still provided in the retrieval delay time, whatever its content or format. See, Capek, col. 7: 47-65.

As to Point 3, the control logic’s function is to allow the client to control how to interact with the insertion. The discussion of the control logic is provided in greater detail herein below. Of course, the user would naturally desire to eventually replace the insertion with the program which they requested. Again, the ability for the client to

control its interaction with the insertion still does not depart from providing the insertion in a retrieval delay time as disclosed in Capek.

As to Point 4, the Examiner is partially describing the operation of providing the insertion in the delay period for retrieving a selected program from a server. This passage, when reasonably construed, clearly indicates that the insertion is not provided independent of the boundaries of the requested program, rather only before the requested program is provided. For example, in the same paragraph as the quoted passage, Capek states “the insertion manager 20 may make a determination of whether the delay in retrieving the program material is sufficiently long to justify retrieving an insertion and sending the insertion to the client 24 for presentation.” Capek, col. 9: 57-61. Capek contemplates not sending an insertion at all if the delay is insufficient. Capek, col. 9: 61-66. Capek also recognizes that determining whether an upcoming retrieval delay is long enough may require estimation, such as being based on historical knowledge. Capek, col. 9: 66 through col. 10:13. As to the particular citation quoted by the Examiner, Capek proposes to buffer the requested program material to effectively extend the delay period so that the insert may be provided to the client, then the buffered material is provided to the client at an increased transmission rate so that the program material arrives to the client as if it were not buffered. Capek, col. 10: 13-20. Clearly, buffering the requested program material merely extends the delay period in which an insertion may be provided, *i.e.* the insertion is still provided in the delay period, and not independent of the boundaries of the program material. Perhaps most telling, the sentence immediately following the discussion of buffering the program material touts the disclosure of Capek as being “able to provide an insertion ... during the retrieval of requested program

materials which, without the present invention, will be perceived as *dead time* to the client 24.” Capek, col. 10: 29-33.

Point 5 is again referring to the buffering of the requested program material, but the Examiner merely quotes to the Summary Of The Invention section rather than rely on the more detailed description of this operation in the Detailed Description section. Again, buffering the retrieved program material (“the transmission of the retrieved application may ... be preceded by waiting a preselected period of time”) merely extends the delay period to allow the insertion to be provided. The insertion is still transmitted in the delay period prior to transmitting the requested program, *i.e.* not independent of the boundaries of the requested program.

As to the Examiner’s Conclusion, it is completely unsupported and even contradicted by the express statements of Capek and reasonable interpretations of the portions of Capek cited by the Examiner. Moreover, it is not entirely clear if the proceeding points 1-5 on the previous page of discussion were intended to support this conclusion or if Point 6 is intended to support the conclusion itself.

As to Point 6, the Examiner appears to attempt to may hay out of the mere existence of the dynamically created insertion. However, Capek does not disclose to transmit a dynamically created insertions (which is presumably created by the insertion manager) any differently than a completed insertion. See, col. 7: 39-47 (“the insertion data may be elements of an insertion that may be dynamically combined *to create an insertion that can be sent to the client*”). Certainly, there is nothing in Capek which supports the Examiner’s conclusion that a dynamic insertion can be “completed” “during a network delay in the middle of transmitting the multimedia perhaps.” Advisory Action,

pp. 4-5. Indeed, the statement is nothing more than blatant speculation fueled by the imagination of the Examiner, perhaps. Such self created disclosure clearly cannot satisfy a basis for anticipation under 35 U.S.C. § 102. There is simply nothing in Capek which suggests that the “dynamically completed insertion” is provided to the client at any time other than a retrieval delay, and the Examiner cites to nothing to support such allegation.

Clearly, none of the portions cited by the Examiner disclose or suggest to insert an alternative media file in a stream independent of boundaries of a multimedia file, and the Examiner’s conclusions are unsupported and contradicted by the disclosure of Capek.

**b. The control mechanism does not control when the insertion is inserted into the data stream**

The Examiner heavily relies on the “control mechanism” to attempt to meet Applicant’s claims. The control mechanism is described in detail in col. 9: 6-24 of Capek, with bold and italics added by Applicant for emphasis:

The insertions may include a control mechanism *that is delivered to the client as a part of the insertion*. The control mechanism preferably comprises programming or specifications *that can enable the client to interact with and control the insertion*. At a minimum, it is expected that the control mechanism will provide for the replacement of the insertion by the requested program material *once the program material is received from the distributed server*. Other functionality that may be provided by the control mechanism include the dismissal of a particular insertion or the discontinuance of insertions in general. The control mechanism may take any number of forms depending upon the technology supported by the network 28. For instance, in some hypermedia systems the control mechanism may be nothing more than a parameter which requires the client 24 to re-request the requested program material after it has been presented with an insertion. Other hypermedia systems may support actual executable instructions that provide control of the hypermedia system, and more particularly, the insertion.

The Final Office action relies on the statement in Capek that that “other functionality that may be provided by the control mechanism include the dismissal of a particular insertion or the discontinuance of insertions in general” (Capek, col. 9: 13-16). Based on the statement, the Examiner concluded that “it is clear that Capek anticipates of a situation where the insertion manager interrupts or ceases the insertion in order to deliver the requested material to the user.” Final Office action, pg. 10.

However, the paragraph found in col. 9: 6-24 merely discusses a “control mechanism that is delivered to the client as a part of the insertion.” Capek, col. 9, 6-7. Clearly, as the control mechanism is delivered with the insertion, it does not control when the insertion is inserted into the data stream, *i.e.* when it is delivered to the client. Rather, as clearly described in Capek, the control mechanism is used by the client to “enable ***the client*** to interact with and control the insertion.” Capek, col. 9: 7-10. The insertion must clearly already have been received by the client (a.k.a. a personal computer 14) to be controlled by the client, *i.e.* the client’s control of the insertion held by the client has no affect on the structure or contents of a data stream provided to the client. Moreover, if the insertion were interrupted when a requested program is received by the client, as concluded by the Examiner, such would clearly indicate that the insertion is not provided independent of the boundaries of a multimedia file.

Again, Capek defines an “insertion” as something which is provided during a delay in retrieving requested data from a server. Capek even provides an example of providing the client with an audio insertion while waiting to retrieve a web page and allowing the client to listen to the audio insertion after the web page is received and being viewed by the client. Capek, col. 7: 58-65 (“the audio message may continue to play to

its end without premature termination even though the web page may have been retrieved and is being presented simultaneously to the user”). Clearly, the “control mechanism” merely provides *the client* the ability to control its own interaction with the insertion (e.g. viewing or listening), it does not control when or in what manner the insertion is provided in the data stream provided to the client. Clearly, the Examiner’s reliance on the “control mechanism” is misplaced.

As Capek does not disclose or suggest each and every element of amended claims 1 and 21 Capek does not anticipate amended claims 1 and 21. Likewise, as claims 3-20 and 22-30 depend on amended claims 1 and 21 respectively, and contain all of the limitations thereof, Capek also does not anticipate claims 3-20 and 22-30. Accordingly, Applicant respectfully request the rejections of claim 1 and 3-30 to be reversed.

**B. Capek Does Not Disclose A Control Signal As Recited In Claim 2**

Claims 1-30 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Capek et al. (U.S. Pat. 6,094,677).

Anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed in a prior art reference as arranged in the claim. See, *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1380 (Fed. Cir. June 2006) (“a claim is anticipated under 35 U.S.C. § 102 ‘if each and every limitation is found either expressly or inherently in a single prior art reference’” citing, *Bristol-Myers Squibb Co. v. Ben Venue Labs, Inc.*, 246 F.3d 1368, 1374 (Fed. Cir. 2001)). See also, *Akzo N.V. v. U.S. Int’l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986); *Connell v. Sears, Roebuck & Co.*, 220 USPQ 193, 198 (Fed. Cir. 1983).

Capek does not disclose an arrangement for inserting an alternative media file into a streaming multimedia file which includes a control unit for receiving as a first input a control signal from said first cache and generating as an output a switching control signal indicative of the presence or absence of a complete alternative media file being stored in said first cache; and a switching mechanism, coupled to each one of said control unit, said first cache, said second cache and said streaming multimedia file for providing as an output, directed to the at least one end-user, a stream selected from one of said first cache, said streaming multimedia file and said second cache, as controlled by said switching output signal from said control unit so as to insert the alternative media file at a predetermined location in the stream, including either one of the beginning and the end of the streaming multimedia file, wherein the control signal output from the first cache indicates that a complete alternative file is stored and is ready for transmission to the predetermined at least one end-user, or will be ready in time to transmit, as recited by claim 2. More particularly, Capek does not disclose at least the limitations recited in the clause “wherein the control signal output from the first cache indicates that a complete alternative file is stored and is ready for transmission to the predetermined at least one end-user, or will be ready in time to transmit,” as recited by claim 2

As discussed above, Capek discloses to use an insertion manager 20 to provide an insert from an insertion repository 22 to a client 24 device during a delay of receiving requested data from a server 26. See. Capek, Title, Abs., Figs. 1, and 4A and 4B. The Examiner repeats the tactic of stringing together text segments from disparate parts of the disclosure of Capek in an attempt to rationalize an imaginary existence of Applicant’s control signal in Capek. In summary of the Examiner’s comments, the Examiner

interprets Capek's disclosed "control mechanism" to satisfy Applicant's claimed "control signal." See, Advisory Action, pp. 8-10 ("Capek includes a control mechanism that 'will provide for replacement of the insertion ..."). However, other than containing the word "control" Capek's "control mechanism" has nothing in common with Applicant's claimed control signal.

As discussed above, Capek's "control mechanism" is provided to the client within an insert, and is to be used by the client to control their interaction with the insert. See, Capek, col. 9: 6-24 ("The insertions may include a control mechanism *that is delivered to the client as a part of the insertion*. The control mechanism preferably comprises programming or specifications *that can enable the client to interact with and control the insertion*."). There is no suggestion in Capek of using a control signal that "indicates that a complete alternative file is stored and is ready for transmission" as recited by claim 2.

As to the specifics of the Examiner's arguments presented in the Advisory Action, there is no suggestion in Capek that the "control mechanism" control the content of the insert, as the Examiner now seems to suggest ("In other words, Capek's control mechanism will replace the insertion data, which may be text, graphic, animation ... (Capek col. 7: 49-52)"). Advisory Action, pg. 9. There is also no suggestion in Capek that the "control mechanism" controls the timing in which an insert is made in a data stream, as the Examiner now seems to suggest by his juxtaposition of selected sentences discussing the control mechanism from the Summary of The Invention (col. 5: 20-22) with the portion of the Detailed Description discussing the timing of the inserts (col. 10: 18-27). See, Advisory Action, pp. 9-10 ("According to Capek, the control logic's function is to 'replace the insertion ... (Capek, col. 5: 20-22). Also, the "insertion

manager may then make a determination of how long to provide the insertion ... (Capek, col. 10: 18-27)"). The approximately column and one half discussion of the timing of placing the insert in the data stream Capek (Capek, col. 9: 54 through col. 10: 67) does not mention the term "control mechanism" at all. In short, the Examiner's argument is nothing more than a tactic of juxtapositioning selected sentences to create an appearance of disclosure by Capek. It is tactics like these that give rise to the simple maxim of the legal requirements of anticipation – either the reference discloses all of the claimed features or not, an argument, no matter how eloquent, creative or exhaustive is not a substitute for disclosure. See, *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1380 (Fed. Cir. June 2006) "anticipation is a question of fact." citing *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1220 (Fed. Cir. 2003).

As Capek does not disclose each and every limitation of claim 2, Applicant respectfully request the rejection of claim 2 to be reversed.

#### **VIII. Conclusion**

Having fully responded to the Office action, the application is believed to be in condition for allowance. Should any issues arise that prevent early allowance of the above application, the examiner is invited contact the undersigned to resolve such issues.

To the extent an extension of time is needed for consideration of this response, Applicant hereby request such extension and, the Commissioner is hereby authorized to charge deposit account number 502117 for any fees associated therewith.

Respectfully submitted,

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Appendix

1. *(currently amended)* An arrangement for inserting an alternative media file into a streaming multimedia file destined for at least one predetermined end-user, the arrangement comprising

a first cache for storing a received alternative media file;

a second cache for storing a streaming multimedia file;

a control unit for receiving as a first input a control signal from said first cache and generating as an output a switching control signal indicative of the presence or absence of a complete alternative media file being stored in said first cache; and

a switching mechanism, coupled to each one of said control unit, said first cache, said second cache and said streaming multimedia file for providing as an output, directed to the at least one end-user, a stream selected from one of said first cache, said streaming multimedia file and said second cache, as controlled by said switching output signal from said control unit so as to insert the alternative media file in the stream,

wherein the alternative media file is inserted in the stream independent of boundaries of the multimedia file.

2. *(currently amended)* An arrangement for inserting an alternative media file into a streaming multimedia file destined for at least one predetermined end-user, the arrangement comprising

a first cache for storing a received alternative media file;

a second cache for storing a streaming multimedia file;

a control unit for receiving as a first input a control signal from said first cache and generating as an output a switching control signal indicative of the presence or absence of a complete alternative media file being stored in said first cache; and

a switching mechanism, coupled to each one of said control unit, said first cache, said second cache and said streaming multimedia file for providing as an output, directed to the at least one end-user, a stream selected from one of said first cache, said streaming multimedia file and said second cache, as controlled by said switching output signal from said control unit so as to insert the alternative media file at a predetermined location in the stream, including either one of the beginning and the end of the streaming multimedia file,

wherein the control signal output from the first cache indicates that a complete alternative file is stored and is ready for transmission to the predetermined at least one end-user, or will be ready in time to transmit.

3. *(original)* The arrangement as defined in claim 1 wherein the control signal output from the first cache indicates that an alternative file is available to be streamed to said first cache from an external server and is ready to begin transmission to the predetermined at least one end-user.

4. *(original)* The arrangement as defined in claim 1 wherein the switching mechanism supplies as an output the streaming multimedia file in the absence of a signal from the control unit that an alternative file is ready to transmit.

5. *(original)* The arrangement as defined in claim 1 wherein the switching mechanism supplies as an output the cached alternative file stored in said first cache in response to a signal from the control unit that an alternative file is ready to transmit.

6. *(previously presented)* The arrangement as defined in claim 1 wherein the control signal input to said control unit indicates that the alternative media file transfer to the predetermined at least one end-user is completed, the control unit thereafter supplying a switching output signal to said switching mechanism requesting said switching mechanism to supply as the output the cached streaming multimedia file from the second cache.

7. *(original)* The arrangement as defined in claim 1 wherein the arrangement further comprises a billing system coupled to the control unit for receiving information from said control unit regarding the identity of each alternative media file transmitted, the identity of the at least one end-user, and related statistics regarding the transmission of various alternative media files to a plurality of different end-users.

8. *(previously presented)* The arrangement as defined in claim 7 wherein the related statistics include the number of times each alternative media file was requested during a predetermined period of time.

9. *(previously presented)* The arrangement as defined in claim 7 wherein the related statistics includes the time of day and date that each alternative media file was requested.

10. *(original)* The arrangement as defined in claim 1 wherein the alternative file is defined as an advertisement file.

11. *(original)* The arrangement as defined in claim 1 wherein the alternative file is defined as an emergency information file.

12. *(original)* The arrangement as defined in claim 1 wherein the arrangement is disposed at a local point of presence in a communication network.

13. *(original)* The arrangement as defined in claim 12 wherein the arrangement is disposed at a headend location in an HFC communication network.

14. *(original)* The arrangement as defined in claim 12 wherein the arrangement is disposed between a wide area data network and a local distribution network.

15. *(original)* The arrangement as defined in claim 12 wherein the arrangement is disposed between a telecommunications central office and a DSL communication network.

16. *(original)* The arrangement as defined in claim 12 wherein the arrangement is disposed between a telecommunications central office and wireless communication network.

17. *(original)* The arrangement as defined in claim 12 wherein the arrangement is disposed in a communications device at an end-user location.

18. *(original)* The arrangement as defined in claim 17 wherein the communications device comprises a set-top box.

19. *(original)* The arrangement as defined in claim 17 wherein the communications device comprises a residential gateway device.

20. *(original)* The arrangement as defined in claim 1 wherein the arrangement further comprises a rule server for retrieving information related to the predetermined at least one end-user and selecting the alternative media file based on said retrieved information and the specific content of the streaming multimedia file.

21. *(currently amended)* A method of inserting an alternative media file in a streaming multimedia file destined for a predetermined end-user, the method comprising the steps of:

a) storing a selected alternative multimedia file in a first cache at a local point of presence;

- b) establishing a communication link between said streaming multimedia file and said predetermined end-user;
  - c) transmitting said streaming media file to said end-user;
  - d) switching transmission from said streaming multimedia file to said alternative media file stored in said first cache;
  - e) storing in a second cache said streaming multimedia file received during the transmission of said alternative media file; and
  - f) upon completion of said alternative media file, accessing said second cache and resuming transmission of the cached streaming multimedia file,
- wherein the alternative media file is inserted in the streaming multimedia independent of boundaries of the multimedia file.

22. *(original)* The method as defined in claim 21 wherein in performing step a), the following steps are performed:

- a1) receiving a request from a predetermined end-user for a streaming multimedia file;
- a2) accessing a rule server with the identity of said end-user, content provider and/or content identity;
- a3) using said identity to select an appropriate type of alternative file for said predetermined end-user and retrieving location information regarding said selected alternative file;
- a4) sending a request for file transfer from a server storing said selected alternative file to the first cache.

23. *(original)* The method as defined in claim 21 wherein in performing step a), the following steps are performed:

- a1) detecting the start of a streaming multimedia flow;
- a2) accessing a rule server with the identity of said end-user, content provider and/or content identity;
- a3) using said identity to select an appropriate type of alternative file for said predetermined end-user and retrieving location information regarding said selected alternative file;
- a4) sending a request for file transfer from a server storing said selected alternative file to the first cache.

24. *(original)* The method as defined in claim 21 wherein in performing step d), switching from said streaming multimedia file to said alternative file when recognizing that an alternative file is available.

25. *(original)* The method as defined in claim 21 wherein in performing step d), switching from said streaming multimedia file to said alternative file at the beginning of said multimedia file.

26. *(original)* The method as defined in claim 21 wherein in performing step d), switching from said streaming multimedia file to said alternative file at the end of said multimedia file.

27. *(original)* The method as defined in claim 21 wherein in performing step d), switching from said streaming multimedia file to said alternative file at any location during transmission of said multimedia file.

28. *(original)* The method as defined in claim 21 wherein in performing step d), providing transition segments between the streaming multimedia file and the alternative file.

29. *(original)* The method as defined in claim 28 wherein the transition segments provide "fade in" and "fade out" between said files.

30. *(previously presented)* The method as defined in claim 21 wherein in performing step d), switching from said streaming multimedia file to said alternative file based on a timing signal embedded in said streaming multimedia file.